

Personal Thinking of 3D Gen-AI

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A glimpse of 3D object Generation

CLAY: Creating High-quality 3D Assets (SIG24)

TECHNICAL PAPER AWARDS

HONORABLE MENTION

CLAY: A Controllable Large-scale Generative Model for Creating High-quality 3D Assets

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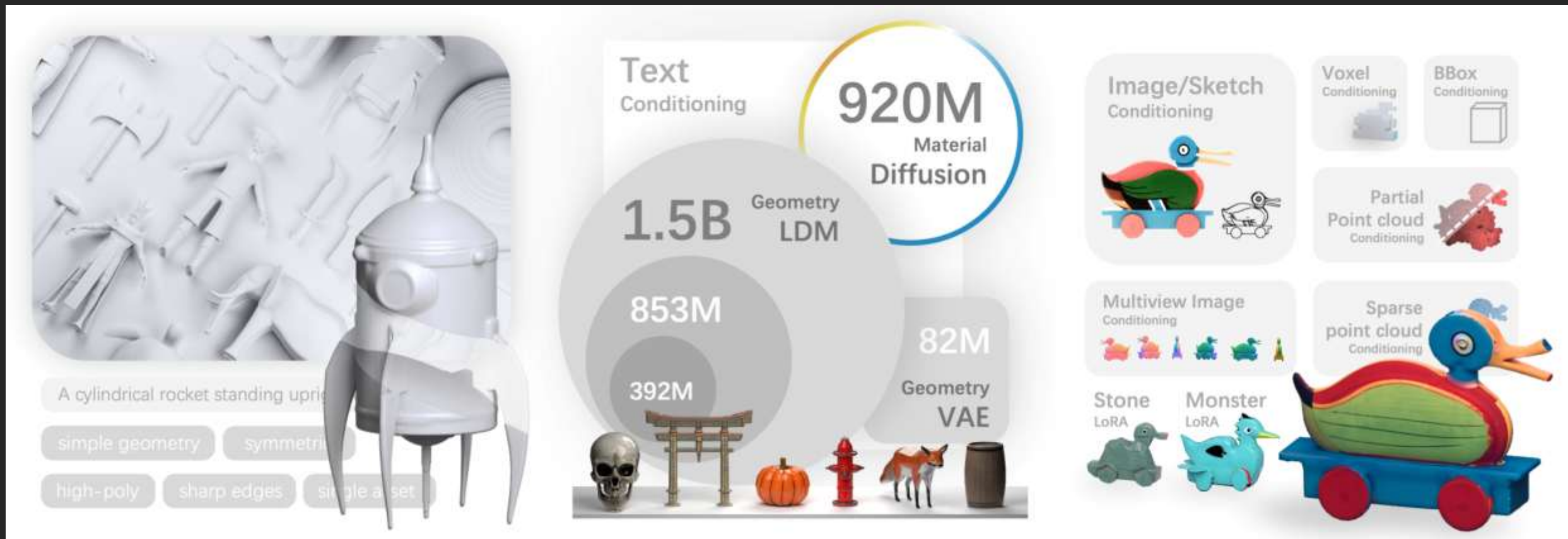
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CLAY: Creating High-quality 3D Assets



CLAY: 3D Native for 3D Lora/Control Net



**Embrace the Industry: go deeper to solve
*Key Problem***

Various Industries: 千行百业需求千奇百怪

Controllable Geo-details; Topology and layout; Parametrization ...

Gaming, Film, E-commerce

The gaming industry spends **\$8-10 billion** annually on outsourced 3D modeling.



Industrial Design

The annual demand for 3D modeling in the industrial design sector is approximately **\$20 billion**.



3D Printing

3D generation technology addresses a core challenge in 3D printing — The inability of individuals to create 3D assets



Embody AI

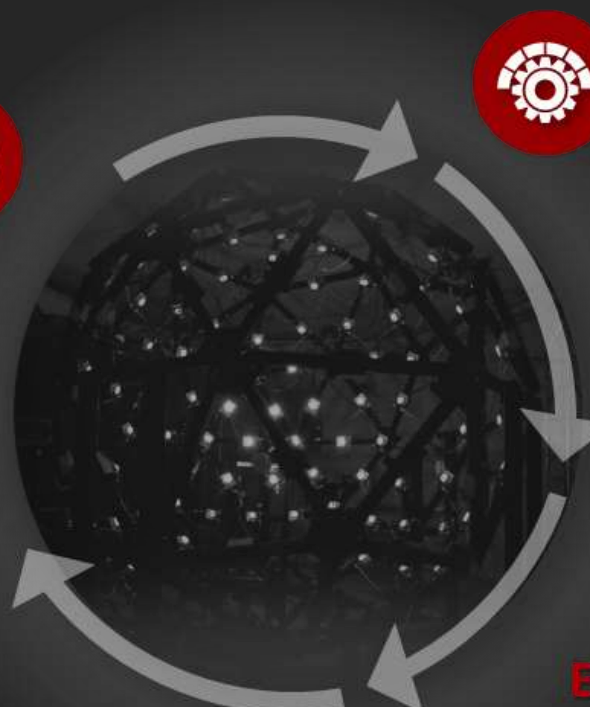
The Generated 3D Assets and scenario can be **Training Data** and Training Engine for Robotics

the robotics industry is projected to exceed a total market value of **\$100 billion**



AR/VR

3D Generation will Empower AR/VR Developers
A content creation, sharing, and social platform centered around 3D generation



Inference-time Scaling for 3D-Gen

Do 3D GenAI Dream of 3D Relationships?

<https://x.com/i/status/1905651874990285277>

Or, target at *Huge Potential Directions...*

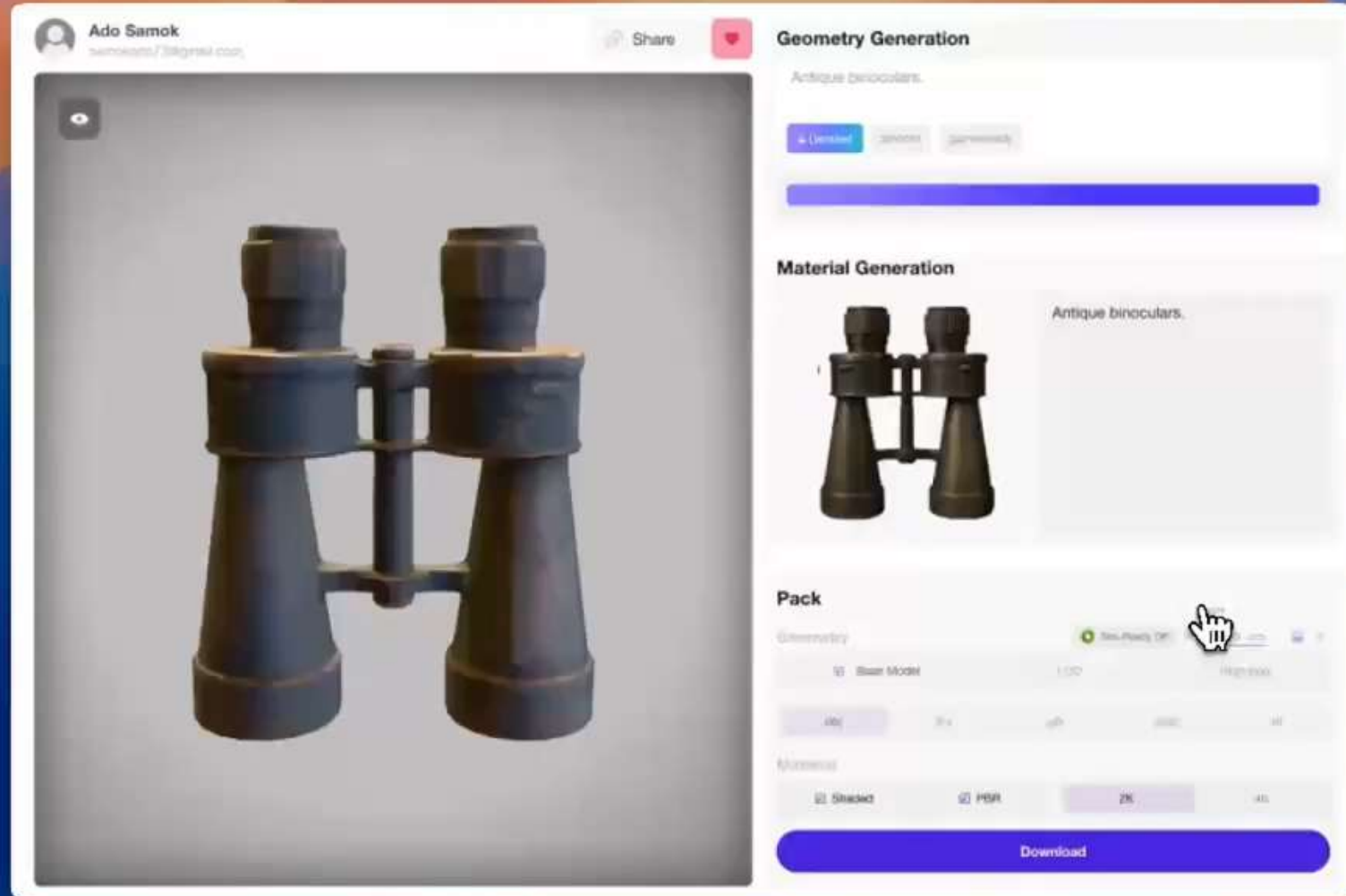
3D-Anchored Neural Renderer via Video-Gen



HYPER3D
Generative Render
WIP

<https://x.com/i/status/1899130779793588715>

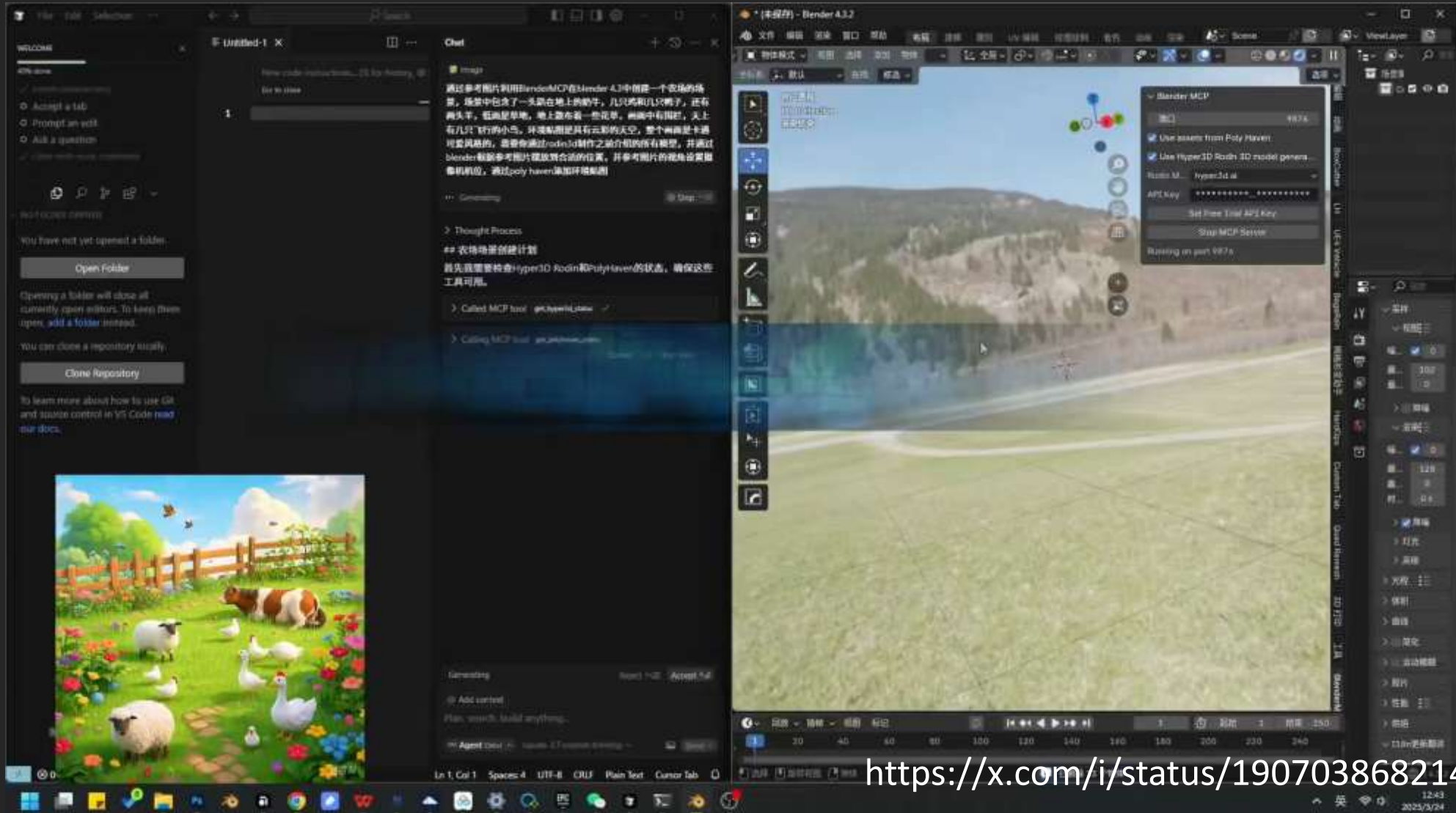
Sim-ready Generation for Embodied-AI



<https://x.com/i/status/1909260693008003377>

AI native Interaction for 3D creation

CURSOR + Blender MCP + 3D-Gen



<https://x.com/i/status/1907038682147598502>

3D Native Large Multi-modality Model

Where is the GPT4o moment for 3D-Gen?

A wide image taken with a phone of a glass whiteboard, in a room overlooking the Bay Bridge. The field of view shows a woman writing, sporting a tshirt with a large OpenAI logo. The handwriting looks natural and a bit messy, and we see the photographer's reflection.

[Read more](#)



Best of 8

selfie view of the photographer, as she turns around to high five him



Best of 8

Take away

- Deeply embrace the industry community

But what' s the key problem?

可控的绝对质量的几何? 拓扑和布线? 参数化表达, 直接/非直接建模?

- Some potential directions ?

可控的视频渲染器? 具身智能仿真器? AI原生交互?

- 3D-Gen 前路漫漫, 此地不宜久留



The end, thanks for listening!